

General

Title

Epilepsy: percentage of all visits for patients with a diagnosis of epilepsy where the patient was screened for psychiatric or behavioral disorders.

Source(s)

American Academy of Neurology. Epilepsy update: quality measurement set. St. Paul (MN): American Academy of Neurology (AAN); 2014. 83 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of all patients with a diagnosis of epilepsy where the patient was screened for psychiatric or behavioral disorders.

Rationale

The prevalence of psychiatric and behavioral health comorbidities in patients with epilepsy is well documented and the relationship between epilepsy and psychiatric and behavioral health disorders is complex (England et al., 2012). Cognitive dysfunction is also a major concern for all people with epilepsy (National Institute for Health and Clinical Excellence [NICE], 2012; Kobau et al., 2012; Vingerhoets, 2006). A gap remains between early detection, treatment, and prevention of psychiatric, cognitive, and social comorbidities in epilepsy (Lin, Mula, & Herman, 2012). Patients with epilepsy report dissatisfaction with life overall and perceive limitations in their social and emotional support (Kobau et al., 2012).

The following clinical recommendation statements are quoted verbatim from the referenced clinical

guidelines and represent the evidence base for the measure:

If a person with epilepsy is found to have evidence of a mood disorder (e.g., depression, anxiety), then s/he should receive treatment or a referral for mental health care (Pugh et al., 2007).

A person with epilepsy should receive screening for depression at least once each year (Pugh et al., 2007).

It is recommended that mutual support groups for parents/families of vulnerable pediatric patients (i.e., children with intractable epilepsy) in the inpatient care setting be developed, implemented and evaluated. The evidence demonstrates that parent support groups can: improve parental attitudes, increase parental knowledge, decrease parental anxiety (Cincinnati Children's Hospital Medical Center, 2009).

If seizures are not controlled and/or there is diagnostic uncertainty or treatment failure, children, young people and adults should be referred to tertiary services soon for further assessment. Referral should be considered when one or more of the following criteria are present: ...There is psychological and/or psychiatric co-morbidity (NICE, 2012).

Maintain a high level of vigilance for treatment-emergent adverse effects (for example, bone health issues and neuropsychiatric issues). Treatment with antiepileptic drugs (AEDs) is associated with a small risk of suicidal thoughts and behavior; available data suggest that the increased risk applies to all AEDs and may be seen as early as 1 week after starting treatment (NICE, 2012).

In making a care plan for a child, young person or adult with) learning disabilities and epilepsy, particular attention should be paid to the possibility of adverse cognitive and behavioral effects of AED therapy (NICE, 2012).

Neuropsychological assessment should be considered in children, young people and adults in whom it is important to evaluate learning disabilities and cognitive dysfunction, particularly in regard to language and memory (NICE, 2012).

Psychological interventions (relaxation, cognitive behavior therapy, biofeedback) may be used in conjunction with AED therapy in adults where either the person or the specialist considers seizure control to be inadequate with optimal AED therapy. This approach may be associated with an improved quality of life in some people (NICE, 2012).

Psychological interventions (relaxation, cognitive behavior therapy) may be used in children and young people with drug-resistant focal epilepsy (NICE, 2012).

Psychological interventions may be used as adjunctive therapy (NICE, 2012).

Opportunity for Improvement

This measure was created to ensure all patients, pediatric and adult, receive timely and standardized screening, thereby increasing the likelihood of early intervention and treatment which should increase patient's quality of life. Given the psychiatric and cognitive burdens, routine screening should be a standard component for pediatric and adult care. Brief, uniform screening is needed to identify patients at risk and standardize their access to care (Lin, Mula, & Herman, 2012). Routine screening and interventions are not currently being performed. Implementation of this measure will increase screening rates, and thereby improve treatment of behavioral health comorbidities.

Evidence for Rationale

American Academy of Neurology. Epilepsy update: quality measurement set. St. Paul (MN): American Academy of Neurology (AAN); 2014. 83 p.

Cincinnati Children's Hospital Medical Center. Best evidence statement (BEST) inpatient support groups for families of children with intractable epilepsy. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2009 May 13. 5 p. [12 references]

England MJ, Liverman CT, Schultz AM, Strawbridge LM. Epilepsy across the spectrum: promoting health and understanding. 1st ed. Washington (DC): The National Academies Press; 2012.

Kobau R, Luncheon C, Zack MM, Shegog R, Price PH. Satisfaction with life domains in people with epilepsy. *Epilepsy Behav.* 2012 Dec;25(4):546-51. [PubMed](#)

Lin JJ, Mula M, Hermann BP. Uncovering the neurobehavioural comorbidities of epilepsy over the lifespan. *Lancet.* 2012 Sep 29;380(9848):1180-92. [PubMed](#)

National Institute for Health and Clinical Excellence (NICE). The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care. London (UK): National Institute for Health and Clinical Excellence (NICE); 2012 Jan. 117 p. (Clinical guideline; no. 137).

Pugh MJ, Berlowitz DR, Montouris G, Bokhour B, Cramer JA, Bohm V, Bollinger M, Helmers S, Ettinger A, Meador KJ, Fountain N, Boggs J, Tatum WO 4th, Knoefel J, Harden C, Mattson RH, Kazis L. What constitutes high quality of care for adults with epilepsy. *Neurology.* 2007 Nov 20;69(21):2020-7. [40 references] [PubMed](#)

Vingerhoets G. Cognitive effects of seizures. *Seizure.* 2006 Jun;15(4):221-6.

Primary Health Components

Epilepsy; screening; psychiatric disorders; behavioral disorders

Denominator Description

All visits for patients with diagnosis of epilepsy (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Patient visits where patient was screened for psychiatric or behavioral health disorders (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Importance of Topic

Epilepsy data is lacking. In 2012, the Institute of Medicine released *Epilepsy across the Spectrum: Promoting Health and Understanding*, detailing epilepsy research disparities and highlighting specific areas where further research is needed, including the extent of epilepsy, consequences, comorbid

conditions and outcomes of epilepsy (England et al., 2012). The following statistics only touch on the magnitude of epilepsy given lack of research and stigma:

It is estimated 2.2 million people in the United States are diagnosed with epilepsy, and 150,000 new cases of epilepsy are diagnosed in the United States annually (England et al., 2012).

Epilepsy prevalence might be underestimated because of underreporting associated with repercussions and stigma in disclosing epilepsy (Kobau et al., 2012).

Common comorbidities among people with epilepsy include somatic (i.e., fractures, asthma, diabetes, and heart disease), neurological (i.e., stroke, Alzheimer's disease, autism spectrum disorders, chronic pain), and mental health conditions (i.e., mood disorders, attention deficit hyperactivity disorders, anxiety disorders, suicidality) (England et al., 2012; Kobau et al., 2008).

It is estimated the number of people with epilepsy who die of sudden unexpected death in epilepsy (SUDEP) range from 1 of every 10,000 who are newly diagnosed to 9 of every 1,000 candidates for epilepsy surgery (England et al., 2012).

People with epilepsy are more likely to be unemployed or unable to work, have low annual household incomes, be obese and physically inactive, and to smoke (England et al., 2012; Kobau et al., 2008). People with epilepsy have poorer overall health status, impaired intellectual and physical functioning, a greater risk for accidents and injuries, and negative side effects from seizure medications (Fountain et al., 2011; England et al., 2012; Kobau et al., 2008).

It is estimated the annual direct medical cost of epilepsy in the United States is \$9.6 billion. This estimate does not include community service costs or indirect costs from losses in quality of life and productivity (England et al., 2012).

Opportunities for Improvement

Additional data on opportunities for improvement and gaps in care specific to the epilepsy measures can be located in the updated epilepsy measures.

A review of 261 patient responses using the PatientsLikeMe survey system indicated a gap remains between recommended care detailed in the 2009 epilepsy measurement set and the care delivered to patients with epilepsy (Wicks & Fountain, 2012).

The Institute of Medicine noted several gaps in care and opportunities for improvement, including 1) timely referrals and access to treatments, 2) epilepsy care and prevention, 3) education of persons with epilepsy and their families, and 4) the stigma of epilepsy (England et al., 2012).

Surgery continues to be heavily underutilized as a treatment for epilepsy, with significant disparities by race and insurance coverage (Englot et al., 2012).

Evidence for Additional Information Supporting Need for the Measure

American Academy of Neurology. Epilepsy update: quality measurement set. St. Paul (MN): American Academy of Neurology (AAN); 2014. 83 p.

England MJ, Liverman CT, Schultz AM, Strawbridge LM. Epilepsy across the spectrum: promoting health and understanding. 1st ed. Washington (DC): The National Academies Press; 2012.

Englot DJ, Ouyang D, Garcia PA, Barbaro NM, Chang EF. Epilepsy surgery trends in the United States, 1990-2008. *Neurology*. 2012 Apr 17;78(16):1200-6. [PubMed](#)

Fountain NB, Van Ness PC, Swain-Eng R, Tonn S, Bever CT Jr, American Academy of Neurology Epilepsy Measure Development Panel and the American. Quality improvement in neurology: AAN epilepsy quality measures: Report of the Quality Measurement and Reporting Subcommittee of the American Academy of Neurology. *Neurology*. 2011 Jan 4;76(1):94-9. [PubMed](#)

Kobau R, Luo YH, Zack MM, et al. Epilepsy in adults and access to care--United States, 2010. *MMWR*

Morb Mortal Wkly Rep. 2012 Nov 16;61(45):909-13. [PubMed](#)

Kobau R, Zahran H, Thurman DJ, Zack MM, Henry TR, Schachter SC, Price PH, Centers for Disease Control and Prevention (CDC). Epilepsy surveillance among adults--19 States, Behavioral Risk Factor Surveillance System, 2005. Morb Mortal Wkly Rep Surveill Summ. 2008 Aug 8;57(6):1-20. [PubMed](#)

Wicks P, Fountain NB. Patient assessment of physician performance of epilepsy quality-of-care measures. Neurol Clin Pract. 2012 Dec;2(4):335-42. [PubMed](#)

Extent of Measure Testing

The new epilepsy measures are being made available without any prior testing. The American Academy of Neurology encourages testing of this measurement set for feasibility and reliability by organizations or individuals positioned to do so.

Evidence for Extent of Measure Testing

American Academy of Neurology. Epilepsy update: quality measurement set. St. Paul (MN): American Academy of Neurology (AAN); 2014. 83 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory Procedure/Imaging Center

Hospital Outpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

Unspecified

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

All visits for patients with diagnosis of epilepsy

Note: Refer to the original measure documentation for International Classification of Diseases, Ninth Revision (ICD-9), International Classification of Diseases, Tenth Revision (ICD-10), and Current Procedural Terminology (CPT) Evaluation and Management (E/M) service codes.

Exclusions

Unspecified

Exceptions

Caregiver is unavailable for a patient who is non-communicative or has an intellectual disability.

Patient has an existing diagnosis of psychiatric disorder and is being actively treated.

Patient declines screening.

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Patient visits where patient was screened* for psychiatric or behavioral health disorders**

**Screened*: Questioning by the individual provider to identify areas of concern, may include standardized testing.

***Psychiatric or behavioral disorders* may include, but are not limited to anxiety, depression, suicidality, mood disorder, attention deficit hyperactive disorder, cognitive dysfunction, or other neurobehavioral disorders.

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Measure #5: screening for psychiatric or behavioral health disorders.

Measure Collection Name

Epilepsy Quality Measurement Set

Submitter

American Academy of Neurology - Medical Specialty Society

Developer

Funding Source(s)

American Academy of Neurology

Composition of the Group that Developed the Measure

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American Board of Internal Medicine: Sharon M. Hibay, RN, DNP

American Clinical Neurophysiology Society: Susan T. Herman, MD

American College of Emergency Physicians: J. Stephen Huff, MD

American Epilepsy Society: Gabriel U. Martz, MD

American Society of Neuroradiology/American College of Radiology: Marvin Nelson, MD

Child Neurology Society: Inna Hughes, MD, PhD

Citizens United for Research in Epilepsy: Tracy Dixon-Salazar, PhD

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Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Endorser

American Epilepsy Society - Medical Specialty Society

Child Neurology Society - Medical Specialty Society

Epilepsy Foundation - Medical Specialty Society

Date of Endorsement

American Epilepsy Society: 2013 Jul 29

Child Neurology Society: 2014 Jul 29

Epilepsy Foundation: 2014 Aug 7

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2014 Jan

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of this measure.

Measure Availability

Source available from the [American Academy of Neurology \(AAN\) Web site](#) .

For more information, contact AAN at 201 Chicago Avenue, Minneapolis, MN 55415; Phone: 800-879-1960; Fax: 612-454-2746; Web site: www.aan.com .

NQMC Status

This NQMC summary was completed by ECRI Institute on January 6, 2016. The information was not verified by the measure developer.

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Production

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